

[USER INTERFACE, SYSTEM, AND METHOD FOR AUTOMATICALLY LABELLING PHONIC SYMBOLS TO SPEECH SIGNALS FOR CORRECTING PRONUNCIATION]

Abstract of Disclosure

A user interface, a system and a method are provided to automatically compare the speech signal of a language learner against that of a language teacher. The system labels the input speech signals with phonic symbols and identifies the portions where the difference is significant. The system then gives grades and suggestions to the learners for improvement. The comparison and suggestions include articulation correctness, timing, pitch, intensity, etc. The method comprises three major stages. In the first stage, a phoneme-feature database is established. The phoneme-feature database contains the statistic data of phonemes. In the second stage, the speech signals of a language learner and a language teacher are labeled with phonic symbols that represent phonemes. In the third stage, the corresponding sections in the student and teachers' speech signals are identified and compared. Grades and suggestions for improvement are given on articulation correctness, timing, pitch, intensity, etc.

Figures